ABSTRACT OF THE DISCLOSURE

A DIGITAL SYSTEM AND METHOD FOR TESTING ANALOGUE AND MIXED-SIGNAL CIRCUITS OR SYSTEMS

A method of optimising a digital test signal for testing an analogue or mixed-signal circuit comprising determining a measure, for example a figure of merit, that is indicative of differences between the output of a fault free and the output of a known faulty circuit in response to an applied digital input signal. The digital input signal is then varied and another figure of merit is calculated for the fault free and the known faulty circuit for the new input signal. This is repeated a number of times, the digital input signal being varied each time. An optimum test signal is selected based on the determined figures of merit.

(54) **Title: A DIGITAL SYSTEM AND METHOD FOR TESTING ANALOGUE AND MIXED-SIGNAL CIRCUITS OR SYSTEMS**
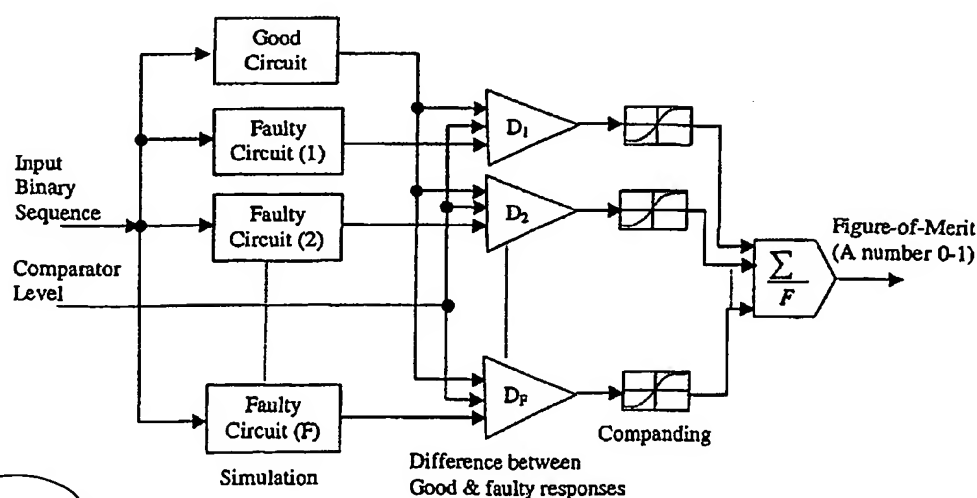
(57) **Abstract:** A method of optimising a digital test signal for testing an analogue or mixed-signal circuit comprising determining a measure, for example a figure of merit, that is indicative of differences between the output of a fault free and the output of a known faulty circuit in response to an applied digital input signal. The digital input signal is then varied and another figure of merit is calculated for the fault free and the known faulty circuit for the new input signal. This is repeated a number of times, the digital input signal being varied each time. An optimum test signal is selected based on the determined figures of merit.